H.R. 1856, AS AMENDED BY THE SUBCOMMITTEE ON ENVIRONMENT, TECHNOLOGY, AND STANDARDS ON JUNE 5, 2003

SECTION 1. SHORT TITLE.

This Act may be cited as the ''Harmful Algal Bloom and Hypoxia Research Amendments Act of 2003''.

SEC. 2. RETENTION OF TASK FORCE.

Section 603 of the Harmful Algal Bloom and Hypoxia Research and Control Act of 1998 (16 U.S.C. 1451 note) is amended by striking subsection (e).

SEC. 3. SCIENTIFIC ASSESSMENTS AND RESEARCH PLANS.

Such section 603 is further amended—

(1) in subsection (a) by adding at the end the following:

''In developing the assessments and research plans described in subsections (b), (c), (d), (e), and (f), the Task Force shall work with appropriate State, Indian tribe, and local governments to ensure that the assessments and research plans fulfill the requirements of subsections (b)(2), (c)(2), (d)(2), (e)(2), and (f)(2). Additionally, the Task Force shall consult with appropriate industry, academic institutions, and non-governmental organizations throughout the development of the assessments and research plans.''; and

(2) by striking subsections (b) and (c) and inserting the following:

''(b) SCIENTIFIC ASSESSMENTS OF HARMFUL ALGAL BLOOMS.—(1) Not less than once every 5 years the Task Force shall complete and submit to the Committee on Science of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate a scientific assessment of harmful algal blooms in United States coastal waters. The first such assessment shall be completed not later than 24 months after the date of enactment of the Harmful Algal Bloom and Hypoxia Research Amendments Act of 2003 and should consider only marine harmful algal blooms. All subsequent assessments shall examine both marine and freshwater harmful algal blooms, including those in the Great Lakes and upper reaches of estuaries.

''(2) The assessments under this subsection shall—

''(A) examine the causes and ecological consequences, and economic costs, of harmful algal blooms;

''(B) describe the potential ecological and economic costs and benefits of possible policy and management actions for preventing, controlling, and mitigating harmful algal blooms;

''(C) evaluate progress made by, and the needs of, Federal research programs on the causes, characteristics, and impacts of harmful algal blooms; and

''(D) identify ways to improve coordination and to prevent unnecessary duplication of effort among Federal agencies and departments with respect to research on harmful algal blooms.

''(c) SCIENTIFIC ASSESSMENT OF FRESHWATER HARMFUL ALGAL BLOOMS.—(1) Not later than 24 months after the date of enactment of the Harmful Algal Bloom and Hypoxia Research Amendments Act of 2003 the Task Force shall complete and submit to the Committee on Science of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate a scientific assessment of current knowledge about harmful algal blooms in freshwater locations such as the Great Lakes and upper reaches of estuaries, including a research plan for coordinating Federal efforts to better understand freshwater harmful algal blooms.

''(2) The freshwater harmful algal bloom scientific assessment shall—

''(A) examine the causes and ecological consequences, and the economic costs, of harmful algal blooms with significant effects on freshwater loca-

tions, including estimations of the frequency and occurrence of significant events;

''(B) establish priorities and guidelines for a competitive, peer-reviewed, merit-based interagency research program, as part of the Ecology and Oceanography of Harmful Algal Blooms (ECOHAB) project, to better understand the causes, characteristics, and impacts of harmful algal blooms in freshwater locations; and

''(C) identify ways to improve coordination and to prevent unnecessary duplication of effort among Federal agencies and departments with respect to research on harmful algal blooms in freshwater locations.

''(d) NATIONAL SCIENTIFIC RESEARCH PLAN INTO REDUCING IMPACTS FROM HARMFUL ALGAL BLOOMS.—(1) Not later than 12 months after the date of enactment of the Harmful Algal Bloom and Hypoxia Research Amendments Act of 2003, the Task Force shall develop and submit to the Committee on Science of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate a research plan providing for a comprehensive and coordinated national research program to develop prevention, control, and mitigation methods to reduce the impacts of harmful algal

blooms on coastal ecosystems (including the Great Lakes), public health, and the economy.

''(2) The research plan shall—

''(A) establish priorities and guidelines for a competitive, peer-reviewed, merit-based interagency research program on methods for the prevention, control, and mitigation of harmful algal blooms; and

''(B) identify ways to improve coordination and to prevent unnecessary duplication of effort among Federal agencies and departments with respect to the actions described in paragraph (1).

''(3) The Secretary of Commerce, under the Coastal Ocean Science Program established under section 201(c) of the National Oceanic and Atmospheric Administration Authorization Act of 1992, and in conjunction with other appropriate Federal agencies, shall establish a research program that meets the priorities and guidelines established under paragraph (2)(A). The Secretary shall ensure, through consultation with Sea Grant Programs, that the results and findings of the research program are communicated to State, Indian tribe, and local governments, and to the general public.

''(e) SCIENTIFIC ASSESSMENTS OF HYPOXIA.—(1) Not less than once every 5 years the Task Force shall complete and submit to the Committee on Science of the

House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate a scientific assessment of hypoxia in United States coastal waters including the Great Lakes. The first such assessment shall be completed not less than 12 months after the date of enactment of the Harmful Algal Bloom and Hypoxia Research Amendments Act of 2003.

''(2) The assessments under this subsection shall—

''(A) examine the causes and ecological consequences, and the economic costs, of hypoxia;

''(B) describe the potential ecological and economic costs and benefits of possible policy and management actions for preventing, controlling, and mitigating hypoxia;

''(C) evaluate progress made by, and the needs of, Federal research programs on the causes, characteristics, and impacts of hypoxia, including recommendations of how to eliminate significant gaps in hypoxia modeling and monitoring data; and

''(D) identify ways to improve coordination and to prevent unnecessary duplication of effort among Federal agencies and departments with respect to research on hypoxia.

''(f) LOCAL AND REGIONAL SCIENTIFIC ASSESSMENTS.—(1) The Secretary of Commerce, in coordination

with the Task Force and appropriate State, Indian tribe, and local governments, shall provide for local and regional scientific assessments of hypoxia or harmful algal blooms, as requested by State, Indian tribe, or local governments, or for affected areas as identified by the Secretary. If the Secretary receives multiple requests, the Secretary shall ensure, to the extent practicable, that assessments under this subsection cover geographically and ecologically diverse locations with significant ecological and economic impacts from hypoxia or harmful algal blooms. The Secretary shall establish a procedure for reviewing requests for local and regional assessments. The Secretary shall ensure, through consultation with Sea Grant Programs, that the findings of the assessments are communicated to the appropriate State, Indian tribe, and local governments, and to the general public.

''(2) The scientific assessments under this subsection shall examine—

''(A) the causes and ecological consequences, and the economic costs, of hypoxia or harmful algal blooms in that area;

''(B) methods to prevent, control, and mitigate hypoxia or harmful algal blooms in that area and the potential ecological and economic costs and benefits of such methods; and

''(C) other topics the Task Force considers appropriate.''.

SEC. 4. PREDICTION AND RESPONSE PLAN.

Section 603 of such Act is further amended by adding at the end the following new subsection:

''(g) PREDICTION AND RESPONSE PLAN.—

''(1) DEVELOPMENT OF PLAN.—Not later than 12 months after the date of enactment of the Harmful Algal Bloom and Hypoxia Research Amendments Act of 2003, the President, in conjunction with the chief executive officers of the States, shall develop and submit to the Congress a plan to protect the environment and public health from impacts of harmful algal blooms. In developing the plan, the President shall consult with the Task Force, the coastal States, Indian tribes, local governments, industry, academic institutions, and nongovernmental organizations with appropriate expertise.

''(2) PLAN REQUIREMENTS.—The plan shall—

''(A) review techniques for prediction of the onset, course, and impacts of harmful algal blooms, including an evaluation of their accuracy and utility in protecting the environment and public health and an assessment of the resources required for their implementation; and

''(B) identify innovative response measures for the prevention, control, and mitigation of harmful algal blooms and identify steps needed for their development and implementation.

''(3) PUBLICATION AND OPPORTUNITY FOR COMMENT.—At least 90 days before submitting the plan to Congress, the President shall publish a summary of the proposed plan in the Federal Register for a public comment period of not less than 60 days.''.

SEC. 5. AUTHORIZATION OF APPROPRIATIONS.

Section 605 of such Act is amended to read as follows:

''SEC. 605. AUTHORIZATION OF APPROPRIATIONS.

''There are authorized to be appropriated to the Secretary of Commerce for research, education, and monitoring activities related to the prevention, reduction, and control of harmful algal blooms and hypoxia, $29,200,000 for fiscal year 2004, $30,700,000 for fiscal year 2005, and $31,200,000 for fiscal year 2006, to remain available until expended. The Secretary shall consult with the States on a regular basis regarding the development and implementation of the activities authorized under this title. Of such amounts for each fiscal year—

''(1) $3,000,000 for each of fiscal years 2004, 2005, and 2006 shall be used to enable the National Oceanic and Atmospheric Administration to carry out research and assessment activities, including procurement of necessary research equipment, at research laboratories of the National Ocean Service and the National Marine Fisheries Service;

''(2) $10,200,000 for each of fiscal years 2004, 2005, and 2006 shall be used to carry out the Ecology and Oceanography of Harmful Algal Blooms (ECOHAB) project under the Coastal Ocean Science Program established under section 201(c) of the National Oceanic and Atmospheric Administration Authorization Act of 1992, with $2,000,000 of such amount used to carry out research on freshwater harmful algal blooms;

''(3) $2,000,000 for fiscal year 2004, $3,000,000 for fiscal year 2005, and $3,000,000 for fiscal year 2006 shall be used to carry out the research program described in section 603(d)(3);

''(4) $6,000,000 for each of fiscal years 2004, 2005, and 2006 shall be used to carry out the Monitoring and Event Response for Harmful Algal Blooms (MERHAB) project under the Coastal Ocean Science Program established under section

201(c) of the National Oceanic and Atmospheric Administration Authorization Act of 1992;

''(5) $5,000,000 for fiscal year 2004, $5,500,000 for fiscal year 2005, and $6,000,000 for fiscal year 2006 shall be used for activities related to research and monitoring on hypoxia through the Coastal Ocean Science Program established under section 201(c) of the National Oceanic and Atmospheric Administration Authorization Act of 1992; and

''(6) $3,000,000 for each of fiscal years 2004, 2005, and 2006 shall be used to carry out the activities described in section 603(f).''.

SEC. 6. COASTAL OCEAN SCIENCE PROGRAM.

Section 201(c) of the National Oceanic and Atmospheric Administration Authorization Act of 1992 is amended to read as follows:

''(c) COASTAL OCEAN SCIENCE PROGRAM.—

''(1) IN GENERAL.—There shall be in the National Oceanic and Atmospheric Administration a Coastal Ocean Science Program that supports Great Lakes, estuarine, and coastal ocean research and assessment through competitive, peer-reviewed, and merit-based research programs.

''(2) PROGRAM ELEMENTS.—The Coastal Ocean Science Program shall augment and integrate existing research capabilities of the National Oceanic and Atmospheric Administration, other Federal agencies, and the academic community. Research shall be conducted to improve predictions of ecosystem trends in Great Lakes, estuarine, and coastal ocean resources; to better conserve and manage living marine resources; to improve predictions of effects of coastal and Great Lakes pollution to help correct and prevent environmental degradation; to improve understanding and characterization of the role oceans play in global climate and environmental analysis; and to improve predictions of coastal hazards to protect human life, personal property, and ecosystem function.

''(3) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary of Commerce for implementing the Coastal Ocean Science Program $34,000,000 for fiscal year 2004, $36,000,000 for fiscal year 2005, and $38,000,000 for fiscal year 2006.''.